

EXPRESS MAIL NO.: EV343427315US

WHAT IS CLAIMED IS:

1. A routing device for transporting digital data from demodulated digital television signals, said routing device comprising:
 - a network that routes the digital data to demultiplexers via at least one decoding module,
 - wherein the network includes means for connecting to at least two independent demodulation channels, each of the demodulation channels producing digital data from a demodulator, and
 - the network allows individual routing of the digital data from each of the demodulation channels to the demultiplexers via at least one decoding module.
2. The routing device of claim 1,
 - wherein the routing device is capable of being connected to a plurality of decoding modules, and
 - the network includes connection means for allowing any of the demodulation channels to be connected to any of the decoding modules.
3. The routing device of claim 1,
 - wherein the routing device manages data flow to at least two decoding modules, and
 - the network includes connection means for allowing the digital signals to be routed through successive decoding modules in a selectable order.
4. The routing device of claim 1,
 - wherein the routing device manages data flow to at least two decoding modules that are connected in a chain, and
 - the network includes connection means for allowing a direction in which the digital data is routed through the chain to be selected.

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5. The routing device of claim 1, wherein the network includes connection means for connecting to at least two data inputs of the demultiplexers, such that each of the data inputs are able to independently receive data originating from any of the demodulation channels.

6. The routing device of claim 1, wherein the routing device carries out the routing in response to commands from a host device that manages demodulation of the digital signals, decoding of the digital data and demultiplexing of the data.

7. A host device for managing reception of digital television signals, the host device being associated with at least one decoding module, said host device comprising:

at least two independent demodulation channels for supplying independently demodulated digital data issued from respective demodulation channels;

a routing device for transporting digital data from demodulated digital television signals, the routing device including a network that routes the digital data to demultiplexers via the at least one decoding module, the network including means for connecting to the at least two demodulation channels, and the network allowing individual routing of the digital data from each of the demodulation channels to the demultiplexers via at least one decoding module; and

a processor allowing each of the demodulation channels to be attributed with a respective one of the decoding modules and commanding the routing device to route the digital data of each of the demodulation channels from the demodulation channel attributed to the decoding module or to each of the decoding modules attributed and to an input of the demultiplexers.

8. The host device of claim 7, wherein further comprising an attribution table stored in a memory, the table permitting the identification, for each channel, of the demodulation channel(s) to be attributed and the decoding module(s) to be attributed.

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9. The host device of claim 7, wherein the processor simultaneously manages signals from at least two active channels, each channel being processed by a respective demodulation channel, and the demodulated data of each channel being sent simultaneously to the respective inputs of the demultiplexing means.
10. The host device of claim 9, wherein the at least two active channels are issued from mutually different digital television signal transmission multiplexes.
11. The host device of claim 7, wherein at least one decoding module is a common interface module in compliance with an established digital television standard.
12. The host device of claim 7, further comprising means for managing at least two independent demodulation channels, issued from respective multiplexes in simultaneous mode.
13. A digital television signal receiver comprising a television combined with a recording device, so as to all simultaneous on screen reproduction of one channel and recording of another channel, the digital television signal receiver including a host device according to claim 7.
14. A digital television signal receiver with an image incorporation function that allows two images from different channels to be simultaneously displayed, the digital television signal receiver including a host device according to claim 7.

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15. A routing method for transporting digital data from demodulated digital television signals, using a network for routing the data to demultiplexers via at least one decoding module, said method comprising the steps of:

connecting a connection means of the network to at least two independent demodulation channels, each of the demodulation channels producing digital data from a demodulator; and

individually routing the digital data from each of the demodulation channels to the demultiplexers via at least one decoding module.

16. The routing method of claim 15, further comprising the step of:

providing at least two decoding modules,

wherein in the routing step, any of the demodulation channels can be routed to any of the decoding modules.

17. The routing method of claim 15, further comprising the step of:

managing at least two decoding modules,

wherein in the routing step, the digital data can be routed through successive decoding modules in a selectable order.

18. The routing method of claim 15, further comprising the step of:

managing at least two decoding modules that are connected in a chain,

wherein in the routing step, a direction in which the digital data is routed through the chain is selectable.

19. The routing method of claim 15, further comprising the step of providing a connection to at least two demodulated data inputs from the demultiplexers, such that each of the data inputs are able to independently receive data from any one of the demodulation channels.

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20. The routing method of claim 15, further comprising the step of providing a host device that controls the routing, manages the demodulation of the digital signals, the decoding of the digital data and the demultiplexing of the data.

21. The routing method of claim 15, further comprising the step of managing at least two independent demodulation channels from respective multiplexes, in simultaneous mode.

22. A method for simultaneous management of at least a first and a second channel of modulated digital television signals, said method comprising:
performing the routing method of claim 15,
wherein the data of the first channel is intended for on screen display of a main image, and
the data of the second channel is intended for incorporation of a second image in the main image.

23. A method for simultaneous management of at least a first and a second channel of modulated digital television signals, said method comprising:
performing the routing method of claim 15,
wherein the data of the first channel is intended for on screen display in real time, and
the data of the second channel is intended for recording by a recording device.

24. A method for simultaneous management of at least a first and a second channel of modulated digital television signals, said method comprising:
performing the routing method of claim 15,
wherein the first and second digital data channels belong to mutually different digital television transmission signal multiplexes.